

REMARKS/ARGUMENTS - RESPONSE TO ARGUMENTS

Examiner T. T. Doan is thanked for a complete search and thorough Office Action.

Reconsideration of the rejection of claims 3, 10-15 under 35 U.S.C. 112, first paragraph, is respectfully requested for the following reasons.

Claims 3, 10-15, previously amended and rejected by the Examiner, are resubmitted for approval. To overcome the Examiner's rejection, the first paragraph on page 9 of the specification is amended as shown above to include silicon dioxide and aluminum oxide as having band-gap widths greater than 8.0 eV, as cited in the Journal of Applied Physics, Vol. 89, No. 10, May 15, 2001, page 5243, Table I on page 5254. This amendment does not add any new material to the applicant's specification, but satisfies 35 U.S.C. 112 by providing a full, clear and concise description of the process enabling any person skilled in the art to carry out the applicant's invention.

The amended Claim 1 is retained to include the term "silicon dioxide" to narrow the claim and to distinguish it from the cited prior art of Alers et al. in view of Liou et al., and further in view of Yoon et al.

Reconsideration of the rejection of claims 1, 3, 10, 12, and 16 under 35 U.S.C. 103(a) is respectfully requested for the following reasons.

Alers et al. use titanium oxide, which has a band gap of 3.5 eV, and which is not a wide-band-gap insulating material. The applicant uses silicon dioxide or aluminum oxide, which have band gaps greater than 8.0 eV, as cited in the reference above. Therefore Alers et al. direct one away from the applicant's invention.

With respect to Liou et al., the Examiner refers to col. 4, lines 45-48, where Liou describes using a titanium oxide layer. However, the Examiner is referred to lines 48-58 in col. 4 where Liou reduces the  $\text{TiO}_2$  to an N type conductive oxide, which is contrary to the applicant's low-leakage current use of wide-band-gap materials.

With respect to Yoon et al., col. 16, lines 9-12, in dependent claim 17, Yoon not only claims  $\text{SiO}_2$  and  $\text{Al}_2\text{O}_3$ , but also claims  $\text{Si}_3\text{N}_4$  and  $\text{TiO}_2$ . Therefore, since Alers is using  $\text{TiO}_2$ , one would be motivated in view of Yoon's claim 17 to also use  $\text{TiO}_2$ , which has a relatively low band gap of only 3.5 eV. Only after reading the applicant's invention and with hindsight would one be motivated to use wide-band-gap insulators such as  $\text{SiO}_2$  and  $\text{Al}_2\text{O}_3$ . Therefore, the applicant's invention is non-obvious and patentable over Alers et al. in view of Liou et al. and further in view of Yoon et al.

Claims 2-9, 11-15, and 17-20 are dependent claims that

do not stand on their own merits but support their respective independent claims.

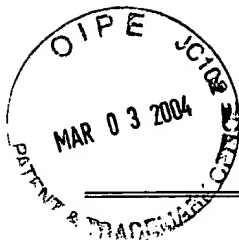
It is requested that the Examiner T. T. Doan call the undersigned Attorney at (845) 452-5863 should there be anything that can be done to help bring this Patent Application to Allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Stephen B. Ackerman", with a stylized, flowing script.

Stephen B. Ackerman

Reg. No. 37,761



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FACSIMILE TRANSMITTAL SHEET

TO:	FROM:
Ashley Hsieh	Stephen B. Ackerman
DEPT:	DATE:
Patent Department	February 2, 2004
COMPANY:	FAX NUMBER:
TSMC	845 471 2064
CC:	
FAX NUMBER:	PHONE NUMBER:
	845 452 5863
RE:	# OF PAGES: (INCLUDING THIS COVER)
TS01-045C	21
NOTES/COMMENTS:	

Dear Ashley,

Attached is the office action for TS01-045C as well as our proposed office action response. We previously forwarded you the application and drawings. The response is due to the USPTO March 2, 2004. If we do not hear back from you by then, we will assume you agree with the response and will then forward it to the USPTO.

With Best Regards,

Stephen B. Ackerman

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